

The diagram illustrates a digital baseband processor architecture. The main signal path is as follows:

- Input signal** enters block **10**, which contains a sub-block **11** (LPF) and a sub-block **12** (S/H).
- The output of block **10** goes to block **13** (A/D).
- The output of block **13** goes to block **14** (IPR).
- The output of block **14** goes to block **15** (A/F).
- The output of block **15** goes to block **16** (DAC).
- The output of block **16** goes to block **17** (DFSE).
- The output of block **17** is the final **output signal**.

Additional components and feedback loops include:

- A **timing recovery** block (40) receives input from the output of block **17** and provides control signals to blocks **12** (S/H) and **13** (A/D).
- A **feedback loop** starts from the output of block **17**, passes through a **FBE** (Feedback Error) block (51), and is summed with the output of block **16** at a summing junction (33).
- The output of the summing junction (33) goes to block **21** (Adaptive filter).
- The output of block **21** goes to block **22** (DAC).
- The output of block **22** is summed with the output of block **16** at another summing junction (32).
- The output of the summing junction (32) goes to block **31** (ECHO).
- Block **31** (ECHO) provides a feedback signal to block **15** (A/F).
- Block **31** (ECHO) also provides a signal to block **33** (summing junction).
- Block **33** (summing junction) also receives a signal from block **34** (NEXT).
- Block **34** (NEXT) receives input from **Tx\_Data**.
- Block **34** (NEXT) also receives a signal from block **35** (LPF).
- Block **35** (LPF) receives input from **Tx\_Data**.
- Block **35** (LPF) also receives a signal from block **36** (S/H).
- Block **36** (S/H) receives input from **Tx\_Data**.
- Block **36** (S/H) also receives a signal from block **37** (A/D).
- Block **37** (A/D) receives input from **Tx\_Data**.
- Block **37** (A/D) also receives a signal from block **38** (IPR).
- Block **38** (IPR) receives input from **Tx\_Data**.
- Block **38** (IPR) also receives a signal from block **39** (A/F).
- Block **39** (A/F) receives input from **Tx\_Data**.
- Block **39** (A/F) also receives a signal from block **40** (A/D).
- Block **40** (A/D) receives input from **Tx\_Data**.
- Block **40** (A/D) also receives a signal from block **41** (LPF).
- Block **41** (LPF) receives input from **Tx\_Data**.
- Block **41** (LPF) also receives a signal from block **42** (S/H).
- Block **42** (S/H) receives input from **Tx\_Data**.
- Block **42** (S/H) also receives a signal from block **43** (A/D).
- Block **43** (A/D) receives input from **Tx\_Data**.
- Block **43** (A/D) also receives a signal from block **44** (IPR).
- Block **44** (IPR) receives input from **Tx\_Data**.
- Block **44** (IPR) also receives a signal from block **45** (A/F).
- Block **45** (A/F) receives input from **Tx\_Data**.
- Block **45** (A/F) also receives a signal from block **46** (A/D).
- Block **46** (A/D) receives input from **Tx\_Data**.
- Block **46** (A/D) also receives a signal from block **47** (LPF).
- Block **47** (LPF) receives input from **Tx\_Data**.
- Block **47** (LPF) also receives a signal from block **48** (S/H).
- Block **48** (S/H) receives input from **Tx\_Data**.
- Block **48** (S/H) also receives a signal from block **49** (A/D).
- Block **49** (A/D) receives input from **Tx\_Data**.
- Block **49** (A/D) also receives a signal from block **50** (IPR).
- Block **50** (IPR) receives input from **Tx\_Data**.
- Block **50** (IPR) also receives a signal from block **51** (A/F).
- Block **51** (A/F) receives input from **Tx\_Data**.
- Block **51** (A/F) also receives a signal from block **52** (A/D).
- Block **52** (A/D) receives input from **Tx\_Data**.
- Block **52** (A/D) also receives a signal from block **53** (LPF).
- Block **53** (LPF) receives input from **Tx\_Data**.
- Block **53** (LPF) also receives a signal from block **54** (S/H).
- Block **54** (S/H) receives input from **Tx\_Data**.
- Block **54** (S/H) also receives a signal from block **55** (A/D).
- Block **55** (A/D) receives input from **Tx\_Data**.
- Block **55** (A/D) also receives a signal from block **56** (IPR).
- Block **56** (IPR) receives input from **Tx\_Data**.
- Block **56** (IPR) also receives a signal from block **57** (A/F).
- Block **57** (A/F) receives input from **Tx\_Data**.
- Block **57** (A/F) also receives a signal from block **58** (A/D).
- Block **58** (A/D) receives input from **Tx\_Data**.
- Block **58** (A/D) also receives a signal from block **59** (LPF).
- Block **59** (LPF) receives input from **Tx\_Data**.
- Block **59** (LPF) also receives a signal from block **60** (S/H).
- Block **60** (S/H) receives input from **Tx\_Data**.
- Block **60** (S/H) also receives a signal from block **61** (A/D).
- Block **61** (A/D) receives input from **Tx\_Data**.
- Block **61** (A/D) also receives a signal from block **62** (IPR).
- Block **62** (IPR) receives input from **Tx\_Data**.
- Block **62** (IPR) also receives a signal from block **63** (A/F).
- Block **63** (A/F) receives input from **Tx\_Data**.
- Block **63** (A/F) also receives a signal from block **64** (A/D).
- Block **64** (A/D) receives input from **Tx\_Data**.
- Block **64** (A/D) also receives a signal from block **65** (LPF).
- Block **65** (LPF) receives input from **Tx\_Data**.
- Block **65** (LPF) also receives a signal from block **66** (S/H).
- Block **66** (S/H) receives input from **Tx\_Data**.
- Block **66** (S/H) also receives a signal from block **67** (A/D).
- Block **67** (A/D) receives input from **Tx\_Data**.
- Block **67** (A/D) also receives a signal from block **68** (IPR).
- Block **68** (IPR) receives input from **Tx\_Data**.
- Block **68** (IPR) also receives a signal from block **69** (A/F).
- Block **69** (A/F) receives input from **Tx\_Data**.
- Block **69** (A/F) also receives a signal from block **70** (A/D).
- Block **70** (A/D) receives input from **Tx\_Data**.
- Block **70** (A/D) also receives a signal from block **71** (LPF).
- Block **71** (LPF) receives input from **Tx\_Data**.
- Block **71** (LPF) also receives a signal from block **72** (S/H).
- Block **72** (S/H) receives input from **Tx\_Data**.
- Block **72** (S/H) also receives a signal from block **73** (A/D).
- Block **73** (A/D) receives input from **Tx\_Data**.
- Block **73** (A/D) also receives a signal from block **74** (IPR).
- Block **74** (IPR) receives input from **Tx\_Data**.
- Block **74** (IPR) also receives a signal from block **75** (A/F).
- Block **75** (A/F) receives input from **Tx\_Data**.
- Block **75** (A/F) also receives a signal from block **76** (A/D).
- Block **76** (A/D) receives input from **Tx\_Data**.
- Block **76** (A/D) also receives a signal from block **77** (LPF).
- Block **77** (LPF) receives input from **Tx\_Data**.
- Block **77** (LPF) also receives a signal from block **78** (S/H).
- Block **78** (S/H) receives input from **Tx\_Data**.
- Block **78** (S/H) also receives a signal from block **79** (A/D).
- Block **79** (A/D) receives input from **Tx\_Data**.
- Block **79** (A/D) also receives a signal from block **80** (IPR).
- Block **80** (IPR) receives input from **Tx\_Data**.
- Block **80** (IPR) also receives a signal from block **81** (A/F).
- Block **81** (A/F) receives input from **Tx\_Data**.
- Block **81** (A/F) also receives a signal from block **82** (A/D).
- Block **82** (A/D) receives input from **Tx\_Data**.
- Block **82** (A/D) also receives a signal from block **83** (LPF).
- Block **83** (LPF) receives input from **Tx\_Data**.
- Block **83** (LPF) also receives a signal from block **84** (S/H).
- Block **84** (S/H) receives input from **Tx\_Data**.
- Block **84** (S/H) also receives a signal from block **85** (A/D).
- Block **85** (A/D) receives input from **Tx\_Data**.
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